

WHAT IS CLAIMED IS:

1. An inferred relation weighting process for determining the strength of an inferred relation between a first and a second Internet object, which are not directly linked, comprising:
 - a first link weighting process for determining the strength of at least a first link between said first non-directly linked Internet object and a common object;
 - a second link weighting process for determining the strength of at least a second link between said second non-directly linked Internet object and said common object; and
 - an inferred relation weight calculation process for calculating the strength of said inferred relation based on the strength of said at least a first link and said at least a second link.
2. The inferred relation weighting process of claim 1 wherein said common object comprises a plurality of discrete Internet objects, each interconnected with a discrete link, and said plurality of discrete Internet objects and links connect said first and second links, wherein said inferred relation weighting process further comprises an intermediate link weighting process for determining the strength of each said discrete link, wherein the strength of said inferred relation is based on the strength of each said discrete link and the strength of said at least a first link and said at least a second link.
3. The inferred relation weighting process of claim 1 wherein said common object includes at least one Internet query.
4. The inferred relation weighting process of claim 1 wherein said common object includes at least one Internet document.
5. The inferred relation weighting process of claim 2 further comprising a link limitation process for specifying a link limit concerning the maximum number of links allowed to connect said first and second non-directly linked Internet objects.

1 6. The inferred relation weighting process of claim 2 further comprising an incoming
2 link analysis process for determining the number of objects linked to each of said plurality of
3 Internet objects, wherein the incoming link value of each said Internet object is directly
4 proportional to the number of objects linked to that Internet object.

1 7. The inferred relation weighting process of claim 2 further comprising an outgoing
2 link analysis process for determining the number of objects that each of said plurality of
3 Internet objects is linked to, wherein the outgoing link value of each said Internet object is
4 directly proportional to the number of objects that said Internet object is linked to.

1 8. The inferred relation weighting process of claim 2 wherein said inferred relation
2 weight calculation process includes a known relation recalculation process for redefining the
3 values of the strength of each said discrete link and the strength of said at least a first link and
4 said at least a second link in response to the calculation of said strength of said inferred
5 relation.

1 9. The inferred relation weighting process of claim 1 wherein at least one of said
2 Internet objects is a transaction record.

1 10. The inferred relation weighting process of claim 1 wherein at least one of said
2 Internet objects is an Internet query.

1 11. The inferred relation weighting process of claim 1 wherein at least one of said
2 Internet objects is an Internet document.

1 12. The inferred relation weighting process of claim 1 wherein said strength of said
2 inferred relation is a relevance score.

1 13. The inferred relation weighting process of claim 9 wherein said relevance score is a
2 percentage.

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1 14. An inferred relation weighting process for determining the strength of an inferred
2 relation between a first and a second Internet object, which are not directly linked,
3 comprising:

4 a first link weighting process for determining the strength of at least a first
5 link between said first non-directly linked Internet object and a plurality of common
6 objects;

7 a second link weighting process for determining the strength of at least a
8 second link between said second non-directly linked Internet object and said plurality
9 of common objects; wherein said plurality of common objects comprises a first
10 common object connected to said first link; a second common object connected to
11 said second link, and an intermediate link interconnecting said first and second
12 common objects;

13 an intermediate link weighting process for determining the strength of said
14 intermediate link; and

15 an inferred relation weight calculation process for calculating the strength of
16 said inferred relation based on the strength of said at least a first link, said at least a
17 second link, and said intermediate link.

1 15. The inferred relation weighting process of claim 14 further comprising a link
2 limitation process for specifying a link limit concerning the maximum number of links
3 allowed to connect said first and second non-directly linked Internet objects.

1 16. The inferred relation weighting process of claim 14 wherein said plurality of common
2 objects includes at least one Internet document.

1 17. The inferred relation weighting process of claim 14 wherein said intermediate link
2 comprises at least one additional common object and a plurality of sub-links for connecting
3 said at least one additional common object to said first and second common objects, wherein
4 said intermediate link weighting process determines the strength of said intermediate link
5 based on the individual strengths of said sub-links.

1 18. The inferred relation weighting process of claim 17 further comprising an incoming
2 link analysis process for determining the number of objects linked to each of said plurality of
3 Internet objects and each said common object, wherein the incoming link value of each said
4 Internet object and each said common object is directly proportional to the number of objects
5 linked to that object.

1 19. The inferred relation weighting process of claim 17 further comprising an outgoing
2 link analysis process for determining the number of objects that each of said plurality of
3 Internet objects and each said common object is linked to, wherein the outgoing link value of
4 each said Internet object and each said common object is directly proportional to the number
5 of objects that said object is linked to.

1 20. The inferred relation weighting process of claim 17 wherein said inferred relation
2 weight calculation process includes a known relation recalculation process for redefining the
3 values of the strength of each said sub-link and the strength of said at least a first link and
4 said at least a second link in response to the calculation of said strength of said inferred
5 relation.

1 21. The inferred relation weighting process of claim 14 wherein at least one of said
2 Internet objects is a transaction record.

1 22. The inferred relation weighting process of claim 14 wherein at least one of said
2 Internet objects is an Internet query.

1 23. The inferred relation weighting process of claim 14 wherein at least one of said
2 Internet objects is an Internet document.

1 24. The inferred relation weighting process of claim 14 wherein said strength of said
2 inferred relation is a relevance score.

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1 25. The inferred relation weighting process of claim 24 wherein said relevance score is a
2 percentage.

1 26. A method for determining the strength of an inferred relation between a first and a
2 second Internet object, which are not directly linked, comprising:

3 determining the strength of at least a first link between the first non-directly
4 linked Internet object and a common object;

5 determining the strength of at least a second link between the second non-
6 directly linked Internet object and the common object; and

7 calculating the strength of the inferred relation based on the strength of the at
8 least a first link and the at least a second link.

1 27. The method for determining the strength of an inferred relation of claim 26 wherein
2 the common object comprises a plurality of discrete Internet objects, each interconnected
3 with a discrete link, and the plurality of discrete Internet objects and links connect the first
4 and second links, wherein determining the strength of the inferred relation further comprises
5 determining the strength of each discrete link, wherein the strength of the inferred relation is
6 based on the strength of each discrete link and the strength of the at least a first link and the
7 at least a second link.

1 28. The method for determining the strength of an inferred relation of claim 27 further
2 comprising specifying a link limit concerning the maximum number of links allowed to
3 connect the first and second non-directly linked Internet objects.

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1 29. A computer program product residing on a computer readable medium having a
2 plurality of instructions stored thereon which, when executed by the processor, cause that
3 processor to:

4 determine the strength of at least a first link between the first non-directly
5 linked Internet object and a common object;

6 determine the strength of at least a second link between the second non-
7 directly linked Internet object and the common object; and

8 calculate the strength of the inferred relation based on the strength of the at
9 least a first link and the at least a second link.

1 30. The computer program product of claim 29 wherein said computer readable medium
2 is a random access memory (RAM).

1 31. The computer program product of claim 29 wherein said computer readable medium
2 is a read only memory (ROM).

1 32. The computer program product of claim 29 wherein said computer readable medium
2 is a hard disk drive.

1 33. A processor and memory configured to:

2 determine the strength of at least a first link between the first non-directly
3 linked Internet object and a common object;

4 determine the strength of at least a second link between the second non-
5 directly linked Internet object and the common object; and

6 calculate the strength of the inferred relation based on the strength of the at
7 least a first link and the at least a second link.

1 34. The processor and memory of claim 33 wherein said processor and memory are
2 incorporated into a personal computer.

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1 35. The processor and memory of claim 33 wherein said processor and memory are
2 incorporated into a network server.

1 36. The processor and memory of claim 33 wherein said processor and memory are
2 incorporated into a single board computer.

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